

Exhibit 27

3GPP TS 29.229 V8.15.0 (2013-03)

Technical Specification

**3rd Generation Partnership Project;
Technical Specification Group Core Network and Terminals;
Cx and Dx interfaces based on the Diameter protocol;
Protocol details
(Release 8)**



The present document has been developed within the 3rd Generation Partnership Project (3GPPTM) and may be further elaborated for the purposes of 3GPP.

The present document has not been subject to any approval process by the 3GPP Organizational Partners and shall not be implemented. This Specification is provided for future development work within 3GPP only. The Organizational Partners accept no liability for any use of this Specification. Specifications and reports for implementation of the 3GPPTM system should be obtained via the 3GPP Organizational Partners' Publications Offices.

```

{ Auth-Session-State }
{ Origin-Host }
{ Origin-Realm }
[ Destination-Host ]
{ Destination-Realm }
{ User-Name }
*[ Supported-Features ]
{ Public-Identity }
{ Visited-Network-Identifier }
[ User-Authorization-Type ]
[ UAR-Flags ]
*[ AVP ]
*[ Proxy-Info ]
*[ Route-Record ]

```

6.1.2 User-Authorization-Answer (UAA) Command

The User-Authorization-Answer (UAA) command, indicated by the Command-Code field set to 300 and the 'R' bit cleared in the Command Flags field, is sent by a server in response to the User-Authorization-Request command. The Experimental-Result AVP may contain one of the values defined in section 6.2.

Message Format

```

< User-Authorization-Answer > ::=          < Diameter Header: 300, PXY, 16777216 >
                                         < Session-Id >
                                         { Vendor-Specific-Application-Id }
                                         [ Result-Code ]
                                         [ Experimental-Result ]
                                         { Auth-Session-State }
                                         { Origin-Host }
                                         { Origin-Realm }
                                         *[ Supported-Features ]
                                         [ Server-Name ]
                                         [ Server-Capabilities ]
                                         *[ AVP ]
                                         *[ Failed-AVP ]
                                         *[ Proxy-Info ]
                                         *[ Route-Record ]

```

6.1.3 Server-Assignment-Request (SAR) Command

The Server-Assignment-Request (SAR) command, indicated by the Command-Code field set to 301 and the 'R' bit set in the Command Flags field, is sent by a Diameter Multimedia client to a Diameter Multimedia server in order to request it to store the name of the server that is currently serving the user.

Message Format

```

<Server-Assignment-Request> ::= < Diameter Header: 301, REQ, PXY, 16777216 >
                                < Session-Id >
                                { Vendor-Specific-Application-Id }
                                { Auth-Session-State }
                                { Origin-Host }
                                { Origin-Realm }
                                [ Destination-Host ]
                                { Destination-Realm }
                                [ User-Name ]
                                *[ Supported-Features ]
                                *[ Public-Identity ]
                                [ Wildcarded-Public-Identity ]
                                { Server-Name }
                                { Server-Assignment-Type }
                                { User-Data-Already-Available }

```

```

[ SCSCF-Restoration-Info ]
[ Multiple-Registration-Indication ]
[ Session-Priority ]
*[ AVP ]
*[ Proxy-Info ]
*[ Route-Record ]

```

6.1.4 Server-Assignment-Answer (SAA) Command

The Server-Assignment-Answer (SAA) command, indicated by the Command-Code field set to 301 and the 'R' bit cleared in the Command Flags field, is sent by a server in response to the Server-Assignment-Request command. The Experimental-Result AVP may contain one of the values defined in section 6.2. If Result-Code or Experimental-Result does not inform about an error, the User-Data AVP shall contain the information that the S-CSCF needs to give service to the user.

Message Format

```

<Server-Assignment-Answer> ::= < Diameter Header: 301, PXY, 16777216 >
< Session-Id >
{ Vendor-Specific-Application-Id }
[ Result-Code ]
[ Experimental-Result ]
{ Auth-Session-State }
{ Origin-Host }
{ Origin-Realm }
[ User-Name ]
*[ Supported-Features ]
[ User-Data ]
[ Charging-Information ]
[ Associated-Identities ]
[ Loose-Route-Indication ]
*[ SCSCF-Restoration-Info ]
[ Associated-Registered-Identities ]
[ Server-Name ]
[ Wildcarded-Public-Identity ]
*[ AVP ]
*[ Failed-AVP ]
*[ Proxy-Info ]
*[ Route-Record ]

```

6.1.5 Location-Info-Request (LIR) Command

The Location-Info-Request (LIR) command, indicated by the Command-Code field set to 302 and the 'R' bit set in the Command Flags field, is sent by a Diameter Multimedia client to a Diameter Multimedia server in order to request name of the server that is currently serving the user.

Message Format

```

<Location-Info-Request> ::= < Diameter Header: 302, REQ, PXY, 16777216 >
< Session-Id >
{ Vendor-Specific-Application-Id }
{ Auth-Session-State }
{ Origin-Host }
{ Origin-Realm }
[ Destination-Host ]
{ Destination-Realm }
[ Originating-Request ]
*[ Supported-Features ]
{ Public-Identity }
[ User-Authorization-Type ]
[ Session-Priority ]
*[ AVP ]

```

Session-Priority	650	6.3.56	Enumerated	V			M	No
Identity-with-Emergency-Registration	651	6.3.57	Grouped	V			M	No
NOTE 1: The AVP header bit denoted as 'M', indicates whether support of the AVP is required. The AVP header bit denoted as 'V', indicates whether the optional Vendor-ID field is present in the AVP header. For further details, see IETF RFC 3588 [6].								
NOTE 2: Depending on the concrete command.								
NOTE 3: The value of these attributes is defined in IETF RFC 4590 [20]								

6.3.1 Visited-Network-Identifier AVP

The Visited-Network-Identifier AVP is of type OctetString. This AVP contains an identifier that helps the home network to identify the visited network (e.g. the visited network domain name).

6.3.2 Public-Identity AVP

The Public-Identity AVP is of type UTF8String. This AVP contains the public identity of a user in the IMS. The syntax of this AVP corresponds either to a SIP URL (with the format defined in IETF RFC 3261 [3] and IETF RFC 2396 [4]) or a TEL URL (with the format defined in IETF RFC 3966 [8]). Both SIP URL and TEL URL shall be in canonical form, as described in 3GPP TS 23.003 [13].

6.3.3 Server-Name AVP

The Server-Name AVP is of type UTF8String. This AVP contains a SIP-URL (as defined in IETF RFC 3261 [3] and IETF RFC 2396 [4]), used to identify a SIP server (e.g. S-CSCF name).

6.3.4 Server-Capabilities AVP

The Server-Capabilities AVP is of type Grouped. This AVP contains information to assist the I-CSCF in the selection of an S-CSCF.

AVP format

Server-Capabilities ::= <AVP header: 603 10415>

*[Mandatory-Capability]

*[Optional-Capability]

*[Server-Name]

*[AVP]

6.3.5 Mandatory-Capability AVP

The Mandatory-Capability AVP is of type Unsigned32. Each value included in this AVP can be used to represent a single determined mandatory capability or a set of capabilities of an S-CSCF, as described in 3GPP TS 29.228 [1] (section 6.7).

6.3.6 Optional-Capability AVP

The Optional-Capability AVP is of type Unsigned32. Each value included in this AVP can be used to represent a single determined optional capability or a set of capabilities of an S-CSCF, as described in 3GPP TS 29.228 [1] (section 6.7).

6.3.7 User-Data AVP

The User-Data AVP is of type OctetString. This AVP contains the user data required to give service to a user. The exact content and format of this AVP is described in 3GPP TS 29.228 [1].